

$\frac{1}{2} \frac{d^2 \theta}{dt^2} = \frac{1}{2} \frac{d^2 \theta}{dt^2}$

1. A data processing system operable with at least two types of software, the system comprising:
 - a host interface for providing address, data and control signals from a host,
 - a storage element for holding data accessible via the host interface, and
 - alternate access circuitry for providing access to the storage element so as to access the data as a first data element in a first register when the system operates with a first type of software, and as a second data element in a second register when the system operates with a second type of software.
2. The system of claim 1, wherein the alternate access circuitry is configured to perform writing data into the storage element in response to a first address signal supplied from the host interface to access the first register, when the system operates with the first type of software.
3. The system of claim 2, wherein the alternate access circuitry is configured to perform writing data into the storage element in response to a second address signal supplied from the host interface to access the second register, when the system operates with the second type of software.
4. The system of claim 1, wherein the alternate access circuitry is configured to perform reading data from the storage element in response to a first address signal supplied from the host interface to access the first register, when the system operates with the first type of software.
5. The system of claim 4, wherein the alternate access circuitry is configured to perform reading data from the storage element in response to a second address signal supplied from the host interface to access the second register, when the system operates with the second type of software.
6. The system of claim 1, wherein the alternate access circuitry comprises a writing multiplexer having a first input for supplying the first data element to the storage element when the system operates with the first type of software, and a

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5 second input for supplying the second data element to the storage element when the system operates with the second type of software.

7. The system of claim 6, wherein the writing multiplexer is controlled by a first select signal to pass the first data element to the storage element when the first select signal is asserted.

8. The system of claim 7, wherein the writing multiplexer is controlled by a second select signal to pass the second data element to the storage element when the second select signal is asserted.

9. The system of claim 8, wherein the first select signal is asserted in response to a first address signal supplied from the host interface to access the first register.

10. The system of claim 9, wherein the second select signal is asserted in response to a second address signal supplied from the host interface to access the second register.

5 11. The system of claim 1, wherein the alternate access circuitry comprises a first reading gate coupled to the storage element for outputting the first data element when the system operates with the first type of software, and a second reading gate coupled to the storage element for outputting the second data element when the system operates with the second type of software.

12. The system of claim 11, wherein the first reading gate is configured to output the first data element in response to a first address first address signal supplied from the host interface to access the first register.

13. The system of claim 12, wherein the second reading gate is configured to output the second data element in response to a second address signal supplied from the host interface to access the second register.

14. A network interface comprising:

a host interface for supplying address, data and control signals from a host,
 a storage element for holding a data element accessible via the host interface,
 and

- 5 alternate access circuitry coupled to the storage element for providing multiple paths for accessing the data element.

15. The network interface of claim 14, wherein the alternate access circuitry is configured to select a path for accessing the data element depending on a type of software used to operate the network interface.

16. The network interface of claim 15, wherein the pass for accessing the data element is allocated in response to an address signal supplied from the network interface to access a predetermined register, when a selected type of software is used to operate the network interface.

17. The network interface of claim 16, wherein the selected type of software requires the data element to be held in the predetermined register.

18. In a data processing system, a method of providing access to a storage element for holding a data element, comprising the steps of:

accessing the storage element via a first access path when a first type of software is used to operate the data processing system, and

- 5 accessing the storage element via a second access path when a second type of software is used to operate the data processing system.

19. The method of claim 18, wherein the first access path is allocated in response to a first address signal identifying a first register required by the first type of software to hold the data element.

20. The method of claim 19, wherein the second access path is allocated in response to a second address signal identifying a second register required by the second type of software to hold the data element.

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